

## Quiz 11: 2/16/15

### Question 1

Below is the code to print “Hello World” using condition variables. Modify the code so that `thread3` prints “Again” so the new output from the program will be “Hello World Again”. Make it clear any changes you are making to `thread1` or `thread2` along with any new global variables you are declaring.

```
int thread1_done = 0;
pthread_cond_t cv;
pthread_mutex_t mutex;

void* thread1(void* param) {
    printf("Hello ");
    pthread_mutex_lock(&mutex);
    thread1_done = 1;
    pthread_cond_signal(cv);
    pthread_mutex_unlock(&mutex);
    return NULL;
}

void* thread2(void* param) {
    pthread_mutex_lock(&mutex);
    while(thread1_done == 0) {
        pthread_cond_wait(&cv, &mutex);
    }
    printf("World ");
    pthread_mutex_unlock(&mutex);
    return NULL;
}

void* thread3(void* param) {
    // ToDo
}

int main(int argc, char** argv) {
    // creates and joins all the threads
    // do not worry about what goes in here
}
```